

REMARKS

Claims 62-82 are pending in the present application. Claims 62-82 have been rejected. Reconsideration and allowance is respectfully requested in view of the amendments and the following remarks.

The 35 U.S.C. § 103 rejection

Claims 62-82 have been rejected under 35 U.S.C. § 103(a), as being unpatentable over Fabis (U.S. Patent No. 6,211,463) in view of Yamazaki et al. (U.S. Patent No. 6,001,432). Applicant is assuming that the Examiner has made a typographical error when the Examiner rejected Claims 26-82. Applicant is addressing the rejection as applying to Claims 62-82.

Applicants respectfully disagree with the Examiner's contentions and traverses the rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

The Fabis reference teaches an electronic circuit device package of the type having a metal laminate base flange of molybdenum clad with copper on both faces and having a CVD diamond film substrate inlaid in a well in the bottom of the base flange so that it is flush with the base flange surface. An opening in the opposite side of the base flange

forms a chamber with the diamond as a floor to which the device may be bonded in intimate contact with the diamond substrate. The edges of the diamond are brazed with a gold-indium braze in intimate thermal contact with a shoulder of the well to maximize heat conduction from the edges of the diamond into the base flange. The base flange may be fastened to the flat surface of a heat sink member with the diamond in intimate thermal contact with the heat sink member. (Abstract) The Fabis reference discloses that the device 28 is electrically connected to the two copper power leads 24 by means of a plurality of bonding wires 30 and is attached by a thermally-conductive bonding agent to a heat conducting floor member, or substrate 32 made of diamond film about 350 micrometers thick. The diamond substrate 32 to which the device 28 is attached is metallized over its entire surface with first a titanium layer about 1000 Angstroms thick, then a layer of platinum about 2000 Angstroms thick, and then a layer of gold about 3.75 microns thick. The attachment is carried out by heating the package and pressing the device 28 against the metallizing 38 while vibrating it horizontally to form a gold-silicon eutectic interface and is a known process. (Col. 3, lines 14-26) For situations in which removal of heat from the edges of the diamond substrate is not considered important, the means of attaching the substrate to the base flange is less important, and can be accomplished, for example, without any metallizing and by simply a suitable organic adhesive. Likewise, where the heat removal from the device to the diamond substrate need not be maximized, there may be used other means of fastening the device to the substrate which do not require metallizing. (Col. 4, lines 19-27)

The Fabis reference does not teach the method as recited in Claims 62, 69, and 76 (in part), "growing a diamond film on a substrate in a deposition chamber" and "removing said diamond film from said substrate". The Fabis reference teaches attaching a diamond film to a substrate by metallization processes or adhesives. The Fabis reference does not teach as claimed.

The Yamazaki reference discloses an apparatus for forming films on a substrate. (Abstract) However, the Yamazaki reference does not teach the method as recited in

Claims 62, 69, and 76 (in part), “growing a diamond film on a substrate in a deposition chamber” and “removing said diamond film from said substrate”. The Fabis reference does not disclose a means for growing diamond, nor the plasma structure as claimed.

Since the Fabis reference does not disclose all the elements of the claims, and the presence of the Yamazaki reference does not remedy this deficiency, the Examiner has failed to make a *prima facie* case of obviousness.

Further, the Examiner has stated that “it would have been obvious to modify the Fabis system to include a plasma no more than 5 mm from the film surface, thus attaining the benefit of cost effectiveness.” There is no suggestion or incentive in the Fabis reference that would have motivated the skilled artisan to modify Fabis or to combine Fabis with the Yamazaki reference. The Fabis reference does not teach “growing a diamond film on a substrate in a deposition chamber” or “removing said diamond film from said substrate”. The Fabis reference only teaches adhering a diamond film, not growing a diamond film. The Yamazaki reference also does not teach growing a diamond film. Therefore, one skilled in the art would not look to the Yamazaki reference because there is no motivation in the Fabis reference to look elsewhere and neither reference teaches as is claimed. The Examiner has failed to make a *prima facie* case of obviousness. Since the Applicant has traversed the Examiner’s rejection, the Applicant requests that the Examiner provide an Affidavit or other evidence of the motivation to combine the references, as required by MPEP 2144.03.

Claims 62, 69 and 76 are not obvious over the cited art. If an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is non-obvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Therefore, Claims 63-68 depending from Claim 62, Claims 70-75 depending from Claim 69, and Claims 77-82 depending from Claim 76, are not obvious over the prior art.

Reconsideration and withdrawal of this rejection is respectfully requested.

Cited Art

The prior art cited (U.S. Patent No. 5,587,013 to Ikegaya et al.; U.S. Patent No. 6,162,412 to Fujimori et al.; U.S. Patent No. 5,791,045 to Yamamoto et al.; U.S. Patent No. 6,509,124 to Noguchi et al.; and UK Patent Application GB 2,260,340) and not relied upon is believed to comprise general information that does not render the present application anticipated or obvious.

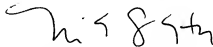
Request for Allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
SIERRA PATENT GROUP, LTD.

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Nicole E. Coppes-Gathy
Reg. No: 46,640

Sierra Patent Group, Ltd.
PO Box 6149
Stateline, NV 89449
(775) 586-9500